

CLAIMS

What is claimed is:

1. A device for removing heat from an electronic component,
5 comprising:
a heat sink adapted to couple to said electronic component and
conduct heat therefrom; and
an appurtenance having fins, coupled to said heat sink and
adapted to transfer said heat into a fluid medium, wherein said fins are oriented at
10 an angle with respect to a plurality of flow streams of said fluid medium across
said fins, and wherein each flow stream of said plurality follows a unique direction.

2. The device as recited in Claim 1 wherein said fins comprise a
substantially plano-linear shape.

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3. The device as recited in Claim 1 wherein said appurtenance
comprises an integral part of said heat sink.

4. The device as recited in Claim 1 wherein each said flow stream of
20 said plurality is oriented substantially orthogonal to each other said flow stream of
said plurality.

5. The device as recited in Claim 4 wherein said fins are oriented at a
substantially 135 degree angle from each said flow stream.

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6. The device as recited in Claim 1 wherein each said flow stream of
said plurality is oriented at an acute angle to each other said flow stream of said
plurality.

7. The device as recited in Claim 6 wherein said fins are oriented at an obtuse angle from each said flow stream.

8. The device as recited in Claim 1 wherein said fins function to
5 change each said unique direction.

9. A device for removing heat from an electronic component, comprising:

a heat sink adapted to couple to said electronic component and
10 conduct heat therefrom; and
an appurtenance having fins, coupled to said heat sink and adapted to transfer said heat into a fluid medium, wherein said fins are curved and function to gradually change the direction of flow of each flow stream of a plurality of flow streams directed towards said appurtenance and wherein each flow
15 stream of said plurality follows a unique direction.

10. The device as recited in Claim 9 wherein said appurtenance comprises an integral part of said heat sink.

20 11. The device as recited in Claim 9 wherein each said flow stream of said plurality is oriented substantially orthogonal to each other said flow stream of said plurality.

12. The device as recited in Claim 9 wherein each said flow stream of
25 said plurality is oriented at an acute angle to each other said flow stream of said plurality.

13. The device as recited in Claim 9 wherein said fins function to effect a change in each said unique direction and wherein said change comprises a gradual change.

5 14. A method for removing heat from an electronic component, comprising:

directing a plurality of flow streams of a fluid medium towards an appurtenance having a plurality of fins, said appurtenance coupled to a heat sink conducting heat from said electronic component, wherein each flow stream of said
10 plurality of flow streams is disposed to approach said appurtenance from a direction different from each other flow stream of said plurality of flow streams; and
changing said direction within a contour described by a space between each said fin of said plurality of fins by interaction with said fins.

15 15. The method as recited in Claim 14 wherein said fins comprise a substantially plano-linear shape.

16. The method as recited in Claim 15, wherein prior to said changing, each said flow stream of said plurality is oriented substantially orthogonal to each
20 other said flow stream of said plurality and said fins are oriented at a substantially 135 degree angle from each said flow stream.

17. The method as recited in Claim 15, wherein prior to said changing, each said flow stream of said plurality is oriented at an acute angle to each other
25 said flow stream of said plurality and said fins are oriented at an obtuse angle from each said flow stream.

18. The method as recited in Claim 14 wherein said fins comprise a substantially curved shape and wherein said changing is performed gradually.

19. The method as recited in Claim 18 wherein each said flow stream of said plurality is oriented substantially orthogonal to each other said flow stream of said plurality.

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20. The device as recited in Claim 18 wherein each said flow stream of said plurality is oriented at an acute angle to each other said flow stream of said plurality.

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